IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Jacob WOHLSTADTER et al.	Group Art Unit: 1743
Serial No.: 10/031,868	Examiner: Brian J. Sines
Filed: July 2, 2002	
	Confirmation No.: 1273
For: APPARATUS AND METHODS FOR CARRYING OUT ELECTRO-CHEMILUMINESCENCE TEST MEASUREMENTS	

Attention: Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
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Sir:

APPEAL BRIEF UNDER BOARD RULE § 41.37

This paper is being filed in response to a Notice of Non-compliant Appeal Brief mailed June 11, 2007. This Appeal Brief has been revised on page 3 to state the claims under appeal.

This Appeal responds to the November 24, 2006, final rejection of claims 66-94.

If any additional fees are required, Appellant requests that the required fees be charged to Deposit Account 06-0916.

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I. Real Party In Interest

BioVeris Corporation is the assignee of Record as evidenced by the assignment recorded on April 27, 2004, at reel 015248, frame 0731, and on May 7, 2001, at reel 011779, frame 0392, and as such, BioVeris Corporation is the real party in interest in this appeal. The assignment was recorded in Application No. 10/031,686, the application at issue in this appeal.

Appellees note that the boards of directors of Roche Holding AG and BioVeris Corporation have agreed that Roche will acquire BioVeris. The merger is subject to approval by BioVeris shareholders and government regulators. Therefore, Roche may become the real party in interest in this appeal.

II. Related Appeals and Interferences

There are currently no other appeals or interferences, of which appellant, appellant's legal representative, or assignee are aware, that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status Of Claims

Claims 1-65 have been cancelled. Claims 66-94 are pending in this application. Claims 66-94 are presently rejected by the Examiner. Claims 66-94 are the subject of the instant appeal. The claims are provided in an Appendix to the appeal brief. As argued below, Appellants believe that the rejected claims are patentable.

IV. Status Of Amendments

The most recent amendments to the claims were made on March 23, 2006, and have been entered by the Examiner. Therefore, all amendments to the specification and claims have been entered, and no amendments have been made subsequent to the November 24, 2006, rejection.

V. Summary Of Claimed Subject Matter

The present invention relates to apparatus for detecting and measuring analytes of interest by inducing electrochemiluminescence (ECL) in a test sample and detecting the resulting light. *Specification,* page 1, lines 5-7.

Independent claim 66 focuses on the apparatus comprising a cell having at least one cell wall which includes a transparent portion adjacent to an ECL chamber defined within said cell; a working electrode abutting said ECL chamber and in optical registration with said transparent portion; a counter electrode abutting said ECL chamber; and a heater, thermally coupled to said working electrode, for adjusting a temperature of said working electrode. *Id.* at page 7, lines 19-24; page 29, lines 28-30.

Independent claim 72 focuses on the apparatus comprising a cell having at least one cell wall which includes a transparent portion adjacent to an ECL chamber defined within said cell; a working electrode abutting said ECL chamber and in optical registration with said transparent portion; a counter electrode abutting said ECL chamber; and a heater, thermally coupled to at least one surface of said ECL chamber. *Id.* at page 7, lines 19-24; page 29, lines 28-29.

Support for the claimed invention can be found in the specification and claims as originally filed, as set forth below.

Support for Independent Claims

Claim	Claim Limitation	Support
66	An apparatus for the conduct of electrochemiluminescence measurements comprising: a cell having at least one cell wall which includes a transparent portion adjacent to an ECL chamber defined within said cell;	page 7, lines 19-22; originally filed claim (page 65, lines 14-22)
	a working electrode abutting said ECL chamber and in optical registration with said transparent portion;	page 7, lines 22-23; originally filed claim (page 65, lines 14-22)
	a counter electrode abutting said ECL chamber; and	page 7, lines 23-24; originally filed claim (page 65, lines 14-22)
	a heater, thermally coupled to said working electrode, for adjusting a temperature of said working electrode.	page 29, lines 28-30; originally filed claim (page 65, lines 14-22)
72	An apparatus for the conduct of electrochemiluminescence measurements comprising: a cell having at least one cell wall which includes a transparent portion adjacent to an ECL chamber defined within said cell;	page 7, lines 19-22
	a working electrode abutting said ECL chamber and in optical registration with said transparent portion;	page 7, lines 22-23
	a counter electrode abutting said ECL chamber; and	page 7, lines 23-24
	a heater, thermally coupled to at least one surface of said ECL chamber.	page 29, lines 28-29

VI. Grounds of Rejection

Claims 66-94 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,200,531 to Liljestrand ("Liljestrand") in view of U.S. Patent No. 5,466,416 to Ghaed ("Ghaed").

VII. Argument

Claims 66-94 are patentable, and a prima facie case of nonstatutory obviousness-type double patenting has not been made. In maintaining the rejection, the Office ignores the limitations of applying a nonstatutory obviousness-type double patenting rejection, specifically that the relied-upon specification can only be used in limited manners and that the pending claims must not be patentably distinct from the cited reference. In this case, the specification was used improperly in maintaining the rejection, and the pending claims were not shown to be not patentably distinct from the commonly owned patent.

A. The Office Action Repeatedly Improperly Relies on the Specification

The Office Action alleges that Liljestrand teaches an apparatus with many of the same limitations as are presently claimed. The Office Action further argues that Ghaed teaches "the use of a fluid handling system that has a fluid heater system" (Office Action at p. 3), and that Liljestrand teaches "that the electrochemiluminescence process occurs at the working electrode 140 site when testing assay samples." (*Id.*)

An obviousness-type double patenting rejection requires particular consideration, and only limited consideration of the specification is permitted, according to the M.P.E.P. The Appellants previously acknowledged, and acknowledge once again here, that consideration of the specification is permitted for certain limited reasons. Overall, however, an obviousness-type double patenting rejection is analogous to an obviousness rejection based on 35 U.S.C. § 103, except that the patent principally underlying the double patenting rejection is not considered prior art. *See* M.P.E.P.

804(II)(B)(1). For this reason, as stated directly in the M.P.E.P., an obviousness-type double patenting rejection is only appropriate if the ***claimed*** subject matter of an application claim is not patentably distinct from the ***claimed*** subject matter in a commonly owned patent. *Id.* The M.P.E.P, however, makes clear that one can only rely on the specification in an obviousness-type double patenting rejection for very particular reasons. The specification "can be used as a dictionary to learn the meaning of a term in the patent claim" and "the portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in the application defines an obvious variation of an invention claimed in the patent." *See* M.P.E.P 804(II)(B)(1) (citations omitted).

The Office Action did not present such an analysis in rejecting claims 66-94 of this application. Indeed, contrary to the guidance of *General Foods*, rather than comparing the application claims to the patent claims for what they define, the Office Action appears to look to the patent claims for what they allegedly teach as though the claims were a prior art reference. Such an analysis is improper under the case law and the M.P.E.P. The Office Action acknowledges that "[t]he MPEP clearly indicates that in an obviousness-type double patenting rejection, the specification of the patent may be used as prior art in determining <u>if the present application claims an obvious variation of an invention claimed in the cited prior patent.</u>" (Office Action at p. 6, emphasis added). The disclosure may not be used as a prior art reference.

As also set forth above, M.P.E.P. § 804(II)(B)(1) requires obviousness-type double patenting rejections to make clear "the differences between the inventions

defined by the conflicting claims . . . and . . . the reasons why a person of ordinary skill in the art would conclude the invention defined in the claim in issue is an obvious variation of the invention defined in a claim of the patent." (Emphasis added.) The Office Action has not made clear the differences between the inventions defined by the conflicting claims, nor has the Office Action provided any reasons as to why one of ordinary skill in the art would find those differences to be obvious variants of one another.

The Office Action repeatedly relies on the specification improperly in constructing a double patenting rejection. Indeed, the Office Action stated that "Liljestrand does teach that the electrochemiluminescence process occurs at the working electrode 140 site when testing assay samples (see, e.g., 14, lines 41-64)." (Office Action at p. 3). This portion of the specification reads as follows:

> As shown in FIG. 3B, the registration of working electrode 140, opening 137, opening 133, transparent base 127, aperture 125, conductive window 124, optical filter 123 and light detector 122 is an important feature of the invention. Proper registration of these elements ensures optimal transmittance of light from the vicinity of working electrode 140 to light detector 122. Additionally, registration of magnet 146 and opening 145 with working electrode 140 allows for the precise and efficient application of magnetic energy at working electrode 140. Such magnetic energy is used to attract magnetic particles from an assay sample to working electrode 140 where electrochemiluminescence may be induced. Preferably, opening 133 itself functions as an optical element that defines the region of working electrode 140 and ECL chamber 139 from which induced electrochemiluminescence may propagate to light detector 122. Per design, counter electrode 136 may block undesired light generated in certain regions of ECL chamber 139. Preferably, the size and shape of the counter electrode aperture 133 is designed to maximize collection of light

> emitted from those regions of the working electrode 140 where magnetic beads have been deposited and minimize collection of light emitted from other regions of the working electrode 140.

Liljestrand at col. 14:41-64 (emphasis omitted).

This is impermissible argument, however, because the M.P.E.P. and case law require obviousness-type double patenting rejections to compare only the ***claimed*** subject matter of an application claim to the ***claimed*** subject matter in a commonly owned patent, as explained above. The Office Action did not address Appellants' response to this argument. Because of the Office Action's improper reliance on the specification, however, appellants respectfully request consideration of this argument. The Office Action here attempts to rely on the specification, but does so outside the permissible scope of such reliance as outlined by the M.P.E.P. The specification "can be used as a dictionary to learn the meaning of a term in the patent claim" or "the portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in the application defines an obvious variation of an invention claimed in the patent." *See* M.P.E.P 804(II)(B)(1) (citations omitted).

In this case, the relied-upon portion of the specification is not necessary to support the apparatus claims in Liljestrand. The fact that the ECL process occurs at the working electrode is not necessary to construct the claimed apparatus, or understand the scope of the claims. Nothing in the claims of Liljestrand relate to the location of the ECL process, its temperature, or the use of any heaters. Indeed, the claims in Liljestrand do not address where the process occurs, or how the process occurs, but

instead focuses on the limitations of the apparatus. The portion of the specification relied upon by the Examiner, however, does relate to such details of the process. As such, this portion of the specification is not required to provide support for the patent claims, nor is it necessary to address an obvious variant of an invention or to act as a dictionary for the meaning of a term in the patent claim. Therefore, the Office Action is attempting to use the specification improperly in constructing this double patenting rejection.

The Office Action continues to rely improperly on the specification. On page 4 of the Office Action, the Office Action relies on Liljestrand at column 17, lines 60 through column 18, line 5 for the teaching of a heater in claims 67, 75, 76, 78, and 85. That portion of the specification reads as follows:

> Heater 216, coupled to temperature controller 224, is a conventional controlled heating device for heating input fluid to be introduced into flow cell 120. Temperature controller 224 is a conventional temperature controller for controlling the operation of heater 216 and responding to control signals from main controller 214. Controller 224 receives power from power source 202 via main interface 210 and, preferably, controls the flow of power to heater 216. Controller 224 may include temperature sensors to determine the temperature of input fluids or, alternatively, such sensors may be incorporated into heater 216. Optionally, heater 216 and/or temperature controlller 224 may be omitted.

Liljestrand at col. 17:60-col. 18:5 (emphasis omitted).

The claims of Liljestrand, however, never recite a heater. Nothing in the claims of Liljestrand relate to a heater, or the temperature of the reaction. Therefore, this potion of the specification is not required to provide support for the claims, nor it is

necessary to address an obvious variation of the invention or to act as a dictionary for the meaning of the term in the patent claim, which are the only permissible considerations of the specification in such an analysis, according to the M.P.E.P. The Office Action, again, improperly relies on the specification relating to the heater, a limitation never recited in the claims of Liljestrand, on page 4 of the Office Action in reference to claim 71.

The Office Action improperly relies on the specification in the same way relating this time to claim 77, in relation to sensors that may be incorporated with the heater, which is a limitation never recited in the claims of Liljestrand. *See* Office Action at p. 5.

B. The Pending Claims Are Patentably Distinct From Those in the Commonly Owned Patent

In addition to using the specification in an improper manner, the Advisory Action has not shown that claims 66-94 of the present application are not patently distinct from the claims of the commonly owned patent. For example, claims 66-94 of the present application require a heater thermally coupled to (1) the working electrode and/or (2) at least one surface of the ECL chamber, while the claims of Liljestrand do not. This fact that the pending claims are patentably distinct from the claims of the commonly owned patent is an issue completely independent from the *General Foods* arguments addressed in the current Office Action. It should be given due consideration.

Here, the Advisory Action appears to rely on Ghaed for the teaching of a heater. (See Advisory Action at p. 3). Ghaed, however, does not teach the heater disclosed in the present invention. In Ghaed, Figure 10 illustrates the heater block 570 separated

from the flow cell 50 by the outlet line 802. (See Ghaed Fig. 10). The present application eliminates this separation, requiring that the heater be thermally coupled to (1) the working electrode and/or (2) at least one surface of the ECL chamber. *See* Specification at 29, 31. Therefore, the Office Action has not shown that a person of ordinary skill in the art would conclude that the methods defined in the claims of the present application are an obvious variant of the device defined in the claims of Liljestrand in view of Ghaed.

The Advisory Action, mailed on March 8, 2007, reiterates the reliance on Ghaed for the teaching of a heater, and it responded to the argument regarding the "thermally coupled" requirement as follows:

> The fluid heater 70, although not in direct contact with the flow cell 62, is considered *thermally coupled* with the flow cell 62, where the electrochemiluminescence process occurs, and fluid handling system 90 (see, e.g., col. 6, line 15 - col. 7, line 31, figure 1). The recitation in the claim that the heater is *thermally coupled* with the working electrode is given a reasonable broad interpretation meaning that the heater need not be in direct contact with the working electrode, but only needs to be capable of inducing a temperature change in the environment proximal to the working electrode.

See Advisory Action at p. 3. The Advisory Action's interpretation of "thermally coupled," however, does not accurately reflect the invention of the pending application. As stated in the specification:

> Heater 216 may be thermally coupled *directly to a surface of ECL chamber* 139, most preferably to working electrode 140 which, preferably, has a high thermal conductivity . . . By *directly* heating fluid and surfaces that will be involved in an ECL reaction and by heating immediately prior to and/or during an ECL measurement, this heating method requires

> less power and can be implemented with a smaller and/or less expensive instrument as compared to heating methods that require continuous temperature control of an entire flow cell and/or all fluids entering the flow cell.
>
> . . . Such a heater 216 adds or removes heat to adjust the temperature of the working electrode and adjacent fluid as desired, preferably *independent* of the temperature of the fluid entering the ECL module and the heat generated during the introduction of ECL.

(See Specification at 29-31 (emphasis added).) Such description in the specification provides an description for "thermally coupled" that contradicts the Advisory Action's interpretation of this term.

Moreover, Ghaed itself discusses structure that separates the heater from the flow cell:

> The outlet line 700 is coupled with a T-junction 780 having a first outlet coupled with a line 790 through which fluids are conveyed to the heater block 570 of the sample fluid heater system 70 (FIG. 1) to be heated thereby in order to bring the fluids conveyed via the line 790 substantially to a predetermined temperature for the conduct of an ECL measurement by the flow cell 50 which receives the heated fluid from an outlet line 802 of the heater block 570. . .
>
> . . . As shown in FIG. 12, the fluids emitted from the heater block 570 are conveyed via the line 802 through the housing 850 and, as shown in FIG. 10, to the flow cell 50.

See Ghaed at col. 14: 9-16, 64-67. These recitations in Ghaed lend further support to the fact that there is distance between the flow cell and the heater. Figure 12 of Ghaed shows that heater 570 is located on the exterior of housing 850, which (also shown in Figure 15) encloses flow cell 50. Flow cell 50 is *not* thermally coupled to heater 570 (such as is required in the pending claims). Figure 15 of Ghaed, for example, shows

substantial air gaps between flow cell 50 and housing 850, except on one surface face where the flow cell is mounted to the housing. This mounting location, however, is not co-located with heater 570, nor with housing heaters 880.

C. The Pending Claims are Not Obvious Variants of Liljestrand in View of Ghaed

Even if the Office Action were permitted to rely on Liljestrand for the fact that "the electrochemiluminescence process occurs at the working electrode," the pending claims are still not obvious variants of the claims in Liljestrand in view of Ghaed. At the very least, it is still not obvious to include a heating device in the apparatus disclosed by Liljestrand. The Advisory Action, relying on M.P.E.P. § 2144.07, incorrectly argues that a person of ordinary skill in the art would have recognized the suitability of using a heating device to control the temperature of the working electrode test site. (*See* Advisory Action at p. 4.) As noted above in the previous section, however, this assertion is incorrect and mischaracterizes the pending claims.

The pending claims require a heater that is "thermally coupled" to (1) the working electrode and/or (2) at least one surface of the ECL chamber, which the Advisory Action does not acknowledge or addess. The claims of Liljestrand do not require the heater or the thermal coupling. The teaching in Ghaed is distinct from that in the pending claims, at least due to the thermal coupling in the pending claims. The Advisory Action has presented no evidence that the addition of a heater that is "thermally coupled" to the working electrode is an obvious variant of the claims of Liljestrand in view of Ghaed.

Additionally, the citation of M.P.E.P. § 2144.07 is not controlling. That section discusses obviousness in the context of a component recognized in the art as a substitute for an intended purpose. For instance, in that section, the M.P.E.P. referred to an agricultural bagging machine which different from the prior art in that it used hydraulic brakes instead of mechanical brakes, when the two types of brakes were recognized as equivalents. *See Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 U.S.P.Q.2d 1323 (Fed. Cir. 1988).

Here, Liljestrand does not recite a different heater in the claims, like the *Ryco* case, but in fact nothing in the claims of Liljestrand relate to the location of the ECL process, its temperature, or the use of any heaters. Therefore, the alleged intended purpose of using a heater in the Liljestrand device was not an intended purpose of that reference. It is only an intended purpose developed in hindsight using the present invention as a guide. Such a scenario is quite different from *Ryco*, where the prior art clearly recognized the need for a brake and the claims in question substituted an art recognized equivalent for the intended braking purpose.

The reference to M.P.E.P. § 2144.07 is also misplaced to the extent it relies on an obviousness rejection that requires a reason to combine the references. In this case, neither of the two references, Liljestrand and Ghaed, describes a heater thermally coupled to the working electrode and/or at least one surface of the ECL chamber. An obviousness rejection requires some reason to modify the reference or combine reference teachings. *See, e.g.,* M.P.E.P. § 706.02(j). The cited references, however, do not provide a teaching of a heater thermally coupled, as required by the claims, nor

do they provide any reason to modify or combine the references, nor has the Examiner identified any other sufficient reason to combine them. Therefore, any reliance on M.P.E.P. § 2144.07 is inappropriate due to its reliance on such obviousness rejections.

D. Claims 68-70 and 79-84 Are Not Just Statements of Intended Use

Claims 68-70 and 79-84 do not merely recite statements of intended use; rather, they recite specific structure for the claimed apparatus. For example, claims 68 and 81 require that the heater be capable "to lower said temperature," a function of which is not available in all heating apparatus. Therefore, it relates to a particular structure of a heater that is designed to operate in this manner. Similarly, several other claims in this grouping require the heater to "maintain" the temperature (claim 69, 82), "vary" the temperature (claim 70, 83), or "adjust" the temperature (claim 84). Each of these limitations requires that the heater be configured in such a way, for example, by means of an internal controller or programmer, to "maintain," "vary" or "adjust" the temperature. Such a configuration relates to a structural requirement, not merely an intended use.

Similarly, claims 79 and 80 recite limitations whereby the heater is either operative or not operative during various phases or stages of the process. Such operation also relates to a particular configuration, again, for example, by means of an internal controller or programmer, that can adjust the operative status as required by the claims. Therefore, these claims are also not merely recitations of intended use, but instead refer to structural limitations.

XIII. Conclusion

For the reasons given above, pending claims 66-94 are allowable and reversal of the Examiner's rejection is respectfully requested.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to Deposit Account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: August 2, 2007

By: _____
Hayley S. Weimer
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IX. Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)

1-65. (Cancelled).

66. (Previously presented) An apparatus for the conduct of electrochemiluminescence measurements comprising:

a cell having at least one cell wall which includes a transparent portion adjacent to an ECL chamber defined within said cell;

a working electrode abutting said ECL chamber and in optical registration with said transparent portion;

a counter electrode abutting said ECL chamber; and

a heater, thermally coupled to said working electrode, for adjusting a temperature of said working electrode.

67. (Previously presented) The apparatus according to claim 66 wherein said heater comprises a temperature sensor thermally coupled to said working electrode.

68. (Previously presented) The apparatus according to claim 66 wherein said heater transfers heat energy from said working electrode to lower said temperature.

69. (Previously presented) The apparatus according to claim 66 wherein said heater is operative to maintain said temperature substantially constant during a

predetermined time interval.

70. (Previously presented) The apparatus according to claim 66 wherein said heater is operative to vary said temperature between predefined temperatures at predefined time intervals.

71. (Previously presented) The apparatus according to claim 66 wherein said heater is thermally coupled to a fluid in said ECL chamber and adjusts a temperature of said fluid.

72. (Previously presented) An apparatus for the conduct of electrochemiluminescence measurements comprising:

a cell having at least one cell wall which includes a transparent portion adjacent to an ECL chamber defined within said cell;

a working electrode abutting said ECL chamber and in optical registration with said transparent portion;

a counter electrode abutting said ECL chamber; and

a heater, thermally coupled to at least one surface of said ECL chamber.

73. (Previously presented) The apparatus according to claim 72 wherein said heater is chosen from a Peltier device, a resistive heater, a sonic heater, and an infrared heater.

74. (Previously presented) The apparatus according to claim 72 wherein the heater comprises heating elements wherein said elements are less than 0.02 inches thick.

75. (Previously presented) The apparatus according to claim 72 further comprising a temperature sensor.

76. (Previously presented) The apparatus according to claim 75 wherein the temperature sensor is chosen from a resistance temperature device (RTD), a thermistor, a thermocouple, a thermometer, and an infrared detector.

77. (Previously presented) The apparatus according to claim 75 wherein the temperature sensor is an integral component of the heater.

78. (Previously presented) The apparatus according to claim 75 further comprising a temperature controller that operates at least some of the time in closed-loop mode.

79. (Previously presented) The apparatus according to claim 72 wherein the heater is not operative during an ECL induction phase.

80. (Previously presented) The apparatus according to claim 72 wherein the heater is operative during a pre-heating stage prior to an ECL induction phase, wherein the preheating stage lasts less than 3 seconds and wherein there is no flow of fluid through the cell during the preheating stage.

81. (Previously presented) The apparatus according to claim 72 wherein said heater can transfer heat energy from said working electrode to lower said temperature and can transfer heat to said working electrode to raise said temperature.

82. (Previously presented) The apparatus according to claim 72 wherein said heater is operative to maintain a temperature of said working electrode substantially constant during a predetermined time interval.

83. (Previously presented) The apparatus according to claim 72 wherein said heater is operative to vary a temperature of said working electrode between predefined temperatures at predefined time intervals.

84. (Previously presented) The apparatus according to claim 72 wherein said heater is thermally coupled to a fluid in said ECL chamber and adjusts a temperature of said fluid.

85. (Previously presented) The apparatus according to claim 72 wherein the

heater is chosen from a Peltier device, a resistive heater, and a sonic heater, said apparatus further comprising a temperature sensor chosen from a resistance temperature device (RTD), a thermistor, a thermacouple, and a thermometer.

86. (Previously presented) The apparatus according to claim 85 further comprising a photodetector in optical registration with said transparent portion.

87. (Previously presented) The apparatus according to claim 86 wherein the heater is thermally coupled to said working electrode.

88. (Previously presented) The apparatus according to claim 87, further comprising a magnetic field generating device, operable to apply a magnetic field to said working electrode.

89. (Previously presented) The apparatus according to claim 88, further comprising an electrically-shielded window adjacent to and in optical registration with said transparent portion.

90. (Previously presented) The apparatus according to claim 89 wherein said photodetector is a photodiode.

91. (Previously presented) The apparatus according to claim 72, further

comprising a light source, optically coupled to said ECL chamber, for providing light to said ECL chamber.

92. (Previously presented) The apparatus according to claim 90, further comprising a light source, optically coupled to said ECL chamber, for providing light to said ECL chamber.

93. (Previously presented) The apparatus according to claim 86 wherein the photodetector inherently avoids the detection of infrared radiation.

94. (Previously presented) The apparatus according to claim 86 further comprising an optical filter in optical registration with said transparent portion having a first transmittance of 600 nm light and a second transmittance of 800 nm light, wherein said first transmittance is at least four times greater than said second transmittance.

X. Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)

There is no evidence being relied upon by appellant in the appeal.

XI. Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)

Appellants are not aware of or relying on any decisions in related proceedings.